

RECORD OF TELEPHONIC INTERVIEW

On October 27, 2004 an interview was conducted with Examiner Vu and Applicant's representative. The novelty of the subject matter of Claims 8 and 11 and related claims was discussed, and the Examiner had apparently agreed that the combination of Evoy (U.S. 6,044,412), Clark, et al. (US 2001/0005225) and Richard (4,756,006) do not suggest the combination of elements as recited in Claim 8 in order to perform the recited functions. Further, Applicant's representative pointed out that Kudou (US 5,363,494), relied upon by the Examiner to supply the transmission gate recited in Claim 11, does not teach a transmission gate at all. The Examiner indicated that she would have to confer on this point with other Examiners, in order to determine whether or not the transmission gate was present in Kudou. However, the Examiner's Interview Summary does not indicate the above-described details of the discussion, and indicates that Applicants would possibly supply Amendments to distinguish the Claims over the Prior Art. While Applicants have provided the above Amendment to overcome the Rejections, the subject matter as presently claimed is identical to the previous subject matter of Claims 8 and 11, and therefore no further search should be required and the Amendment should be entered.

REMARKS

Claims 1-20 were rejected. Claims 3-7, 11, 14 and 18-19 have been canceled. New Claim 21 has been added. Claims 1,2, 8-10 12, 13, 15-17 and 20 stand rejected.

1. Rejections under 35 U.S.C. §112

The Examiner has rejected Claim 18 under 35 U.S.C. §112, second paragraph, as being indefinite for lacking antecedent basis for "said second switch means". Claim 18 has been canceled.

2. Rejections under 35 U.S.C. §102

The Examiner has rejected Claims 1, 2, 4, 7, 12, 13, 15, 16 and 18 under 35 U.S.C. §102(b) as being anticipated by Evoy. Applicant has Amended all independent Claims to recite features previously included in one of Claims 8-11, 14-15, 17 or 19, of which only Claim 15 was rejected under 35 U.S.C. §102(b).

Claim 15 has been amended to place it in independent form and Applicants respectfully disagree that Claim 15 is anticipated by Evoy. Claim 15 recites "latching a signal value received from said external pin resulting from said coupling" and "holding said signal value to maintain a state of one of said plurality of internal signals." The Examiner indicates that Figure 2 and col. 4, lines 11-20 reveal a teaching of such latching and holding. Figure 2 of Evoy does not show a latch at all and the referenced

section of the specification describes only an arbitration mechanism by which conflicts are avoided and not latching of signal values received from the peripheral devices. Applicants therefore believe that the rejections under 35 U.S.C. §102 have been overcome.

3. Rejections under 35 U.S.C. §103

Claim 1 has been amended to include the first switch means transmission gate of previous Claim 11 (as mirroring previous Claim 19). Claim 2 has been amended to recite all of the features of previous Claim 11. Claim 8 has been amended to place it in independent form including all of the features previously recited in Claim 1. Claim 12 has been amended to recite all of the features recited in previous Claim 14. Claim 15 has been rewritten in independent form. Claim 16 has been amended to recite all of the features recited in previous Claim 19 and New Claim 21 has been added to recite all of the features recited in previous Claim 17. All other Claims have either been canceled or depend from one of Claims 1, 8, 12, 15, 16 or 21 above and therefore should be allowable if the corresponding independent claim is found allowable.

Independent Claims 1, 12 and 16 correspond to the subject matter of previous claims 19 (as a portion of features recited in previous Claim 11), 14 and again 19.

Previous Claims 11, 14 and 19 were rejected as being

unpatentable over Evoy in view of Clark in further view of in further view of Kudou. Applicants respectfully disagree as pointed out in the above Record of Telephonic Interview. Evoy does not teach or suggest an interface or interface mode that supports bidirectional signals via a transmission gate connection and neither does Clark. None of the references teach a transmission gate at all. Amended Claim 1 (and similarly Claim 12 and 16) recites: "said node is a bi-directional interface pin for interfacing bi-directional signals . . . wherein said first switch means comprises a transmission gate." Kudou does not teach a transmission gate as asserted by the Examiner in the Final Office Action. Kudou teaches a buffer circuit that is not simultaneously bidirectional, as a transmission gate provides, but rather is enabled for one direction or the other via complementary read or write signals (See Kudou Figures 5, 6 and associated text.) Neither of the other references teaches use of a transmission gate at all. Nothing in Evoy suggests a solution to the problem of interfacing a truly bi-directional signal from one or more of the connected peripherals.

Therefore Applicants believe that Amended Claims 1, 12 and 16 (and claims depending therefrom) should be allowed and that any rejections pertaining thereto from the previous Office Actions are overcome.

Independent Claims 8, 15 and 21 correspond to the subject matter of previous claims 8, 15 and 17. While Claim 15 was

rejected under 35 U.S.C. §102(b), Applicants mention Claim 15 here as it relates to the same subject matter as Claims 8 and 21.

In the Final Office Action, the Examiner has rejected Claim 8 as being unpatentable over Evoy in view of Clark in further view of Richard and Claim 17 as being unpatentable over Evoy in view of Grandinaru (US 6,378,008) in further view of Richard. Applicant respectfully disagrees with all of the above rejections.

Richard teaches bus interface connections, but not a bus interface sharing a pin between two internally multiplexed signals targeting different peripherals and neither does Clark or Grandinaru. Clark teaches a system of CMOS image sensors, not computer bus pin-sharing at all nor is the technology so related that there would be any motivation to combine Clark with Evoy.

The Examiner only mentions that while Evoy and Clark or Evoy and Grandinaru do not teach a transparent latch, Richard does. Specifically, the Examiner mentions that "Evoy and Clark do not explicitly disclose implementing a first latch and a second latch in place of a first tri-state buffer and a second tri-state buffer." The only motivation for doing so is given by the Examiner as "because latch can be manufactured at relatively low cost." Such motivation is not sufficient to produce the claimed invention without further functional reason, as the tri-state buffers do not perform the same function as the transparent latches. Applicants respectfully point out that it is only in the

hindsight of Applicant's disclosure and Claims that the Examiner suggests the idea of replacing the tri-state buffers with transparent latches.

Applicant respectfully reiterates that in addition to showing the existence of an element in a secondary or tertiary reference, the Examiner must show that there exists a motivation (i.e., a reason in view of the references) to combine the teachings of the reference, absent hindsight of the particular combination of the elements as revealed by the Claims. A functional substitution that is not an equivalent - i.e., does not perform the same function - is not demonstrated to be motivated by observation of a factor such as cost.

The reason (function as recited in the claims) for using a transparent latch is to hold the incoming state information from one peripheral after switching to the next - a reason that is not shown in Evoy and is not present in the other references, as are not concerned with interfacing two peripherals over the same signal lines. None of the above references show a motivation to combine any of their teachings with the teachings of Evoy and further, Evoy does not mention such a motivation to hold the state of an incoming signals after another device has been selected. None of the references Evoy, Clark or Richard demonstrate a motivation to include a latch for each signal input to the interface so that a state of two shared input signals can be maintained within the interface.

Therefore Applicants believe that Amended Claims 8, 15 and 21 (and claims depending therefrom) should be allowed and that any rejections pertaining thereto from the previous Office Actions are overcome.

Therefore, for all of the reasons stated above, Applicant believes that the rejections under 35 U.S.C. §103 have been overcome.

Therefore, for all of the reasons stated above, Applicants believe that all of the rejections have been overcome.

CONCLUSION

In conclusion, Applicant respectfully submits that this Amendment, in view of the Remarks offered in conjunction therewith, are fully responsive to all aspects of the objections and rejections tendered by the Examiner in the Final Office Action. Applicant respectfully submits that he has demonstrated that the above-identified Patent Application, including Claims 1,2, 8-10 12, 13, 15-17 and 20-21 is in condition for allowance, and that the Amendment should be entered as the changes to the Claims reflect claims that were previously Examined. Such action is earnestly solicited.

The only fee believed to be required in connection with this Amendment is the fee of \$264 for three additional independent Claims, which should be deducted from IBM Deposit Account 09-0447. However, if there are any other fees incurred by this Amendment Letter, please also deduct them from IBM Deposit Account NO. 09-0447.

Respectfully submitted,



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